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Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Name JET-LUBE® TF-15®

Chemical name

Synonyms TF-15®

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Sealant. Lubricants, Greases and Release Products.

Uses advised against No information available.

1.3. Details of the supplier of the safety data sheet

Importer

Jet-Lube (UK) Ltd
Jet-Lube House
Reform Road, Maidenhead
Berkshire UK
SL6 8BY
TEL: 44 1628-631913 (8:00 a.m. -
5:00p.m. GMT)

Manufacturer

Jet Lube, LLC
930 Whitmore Drive
Rockwall, Texas USA 75087
TEL: +1-713-670-5700 (8am-5pm CST)

For further information, please contact.

Responsible Persons

Regulatory Affairs Manager - Thomas Hansen

E-mail Address

thomas.hansen@jetlubecanada.com

Non-Emergency Telephone Number

+1-780-463-7441 (JL Canada) +1-972-771-1000 (USA Office)
+44-1628-631913 (JL UK Office)

1.4. Emergency telephone number

Emergency Telephone Number 44 1628-631913

Emergency telephone §45 - (EC)1272/2008	
Europe	112
Austria	Poison Information Center (AT): +43-(0)1-406 43 43



Belgium	Poison Center (BE): +32 70 245 245
Denmark	Poison Control Hotline (DK): +45 82 12 12 12
Finland	Poison Information Centre (FI): +358 9 471 977
France	ORFILA (FR): + 01 45 42 59 59
Germany	Poison Center Berlin (DE): +49 030 30686 790 (24 h service, Advice in German and English)
Ireland	National Poisons Information Centre (IE): +353 1 8379964
Italy	Poison Center, Milan (IT): +39 02 6610 1029
Netherlands	National Poisons Information Center (NL): +31 30 274 88 88 (NB: this service is only available to health professionals)
Norway	Poisons Information (NO): + 47 22 591300
Poland	Poison Control and Information Centre, Warsaw (PL): +48 22 619 66 54; +48 22 619 08 97
Portugal	Poison Information Center (PT): +351 21 330 3284
Spain	Poison Information Service (ES): +34 91 562 04 20
Sweden	Poisons Information Center (SV): +46 8 33 12 31
Switzerland	Poison Center (CH): Tel 145: +41 44 251 51 51
United Kingdom	NHS Direct (UK): +44 0845 46 47

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Acute toxicity - Inhalation (Dusts/Mists)	Category 5 - (H333)
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2.2. Label elements

Signal word

Warning

Hazard Statements

H333 - May be harmful if inhaled

EUH208 - Contains 1,3,4-Thiadiazole, 2,5-bis(octylidithio)- EUH208 - May produce an allergic reaction

Precautionary Statements - EU (§28, 1272/2008)

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

P308 + P313 - IF exposed or concerned: Get medical advice/attention

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P201 - Obtain special instructions before use

P280 - Wear protective gloves/protective clothing/eye protection/face protection

Additional information

This product requires tactile warnings if supplied to the general public

This product requires child resistant fastenings if supplied to the general public

2.3. Other hazards

No information available



Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable.

3.2 Mixtures

Chemical name	EC No	CAS-No	Percent	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Lubricating greases A complex combination of hydrocarbons having carbon numbers predominantly in the range of C12 through C50. may contain organic salts of alkali metals, alkaline earth metals, etc.	278-011-7	74869-21-9	40-50	No data available	
Graphite	231-955-3	7782-42-5	15-20	No data available	
Talc	238-877-9	14807-96-6	10-15	No data available	
Mica	-	12001-26-2	5-10	No data available	
1,3,4-Thiadiazole, 2,5-bis(octyldithio)-	236-912-2	13539-13-4	0-1	Skin Sens. 1 (H317) Eye Irrit. 2 (H319) Skin Sens. 1 (H317) Acute Tox. 4 (H332)	

Full text of H- and EUH-phrases: see section 16

Note

The producer of "74869-21-9" declares that it contains less than 3% DMSO extractable material by IP-346 The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346. This note applies only to certain complex oil derived substances in Annex I

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Section 4: First aid measures

4.1. Description of first aid measures

General advice	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.
Inhalation	If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen.
Skin contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Ingestion Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.

Self-protection of the first aider Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Do not breathe vapor or mist. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Use personal protective equipment as required. See section 8 for more information.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms Coughing and/ or wheezing. Difficulty in breathing.

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media No information available.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Hazardous Combustion Products

Carbon oxides, Thermal decomposition of product above 300 degrees (C), can create Carbonyl fluoride, which combines with air and moisture and hydrolyses to Hydrogen Fluoride and Carbon Dioxide. Other PTFE degradation products include; perfluoroisobutylene, tetrafluoroethylene, hexafluoropropylene, carbon monoxide and trifluoromethane.

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Other Information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

General Hygiene Considerations Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits

Chemical name	EU	United Kingdom	France	Spain	Germany
Graphite	-	STEL: 30 mg/m ³	TWA: 2 mg/m ³	TWA: 2 mg/m ³	-

7782-42-5		STEL: 12 mg/m ³ TWA: 10 mg/m ³ TWA: 4 mg/m ³			
Talc 14807-96-6	-	TWA: 1 mg/m ³ STEL: 3 mg/m ³	-	TWA: 2 mg/m ³	-
Mica 12001-26-2	-	STEL: 2.4 mg/m ³ STEL: 30 mg/m ³ TWA: 0.8 mg/m ³ TWA: 10 mg/m ³	-	TWA: 3 mg/m ³	-
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
Graphite 7782-42-5	TWA: 2 mg/m ³	TWA: 2 mg/m ³	-	TWA: 2 mg/m ³	TWA: 2.5 mg/m ³
Talc 14807-96-6	TWA: 2 mg/m ³ Carc*	TWA: 2 mg/m ³ Carc*	TWA: 0.25 mg/m ³	TWA: 0.5 fiber/cm3 STEL: 2 ppm STEL: 1 ppm	TWA: 0.3 fiber/cm3 Carc*
Mica 12001-26-2	TWA: 3 mg/m ³	TWA: 3 mg/m ³	-	-	-
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Graphite 7782-42-5	STEL 10 mg/m ³ TWA: 5 mg/m ³	TWA: 2.5 mg/m ³ TWA: 5 mg/m ³	TWA: 4.0 mg/m ³ TWA: 1.0 mg/m ³ TWA: 6.0 mg/m ³	TWA: 5 mg/m ³ TWA: 2 mg/m ³ TWA: 10 mg/m ³ TWA: 4 mg/m ³ STEL: 10 mg/m ³ STEL: 4 mg/m ³ STEL: 15 mg/m ³ STEL: 8 mg/m ³	TWA: 10 mg/m ³ TWA: 4 mg/m ³ STEL: 30 mg/m ³ STEL: 12 mg/m ³
Talc 14807-96-6	TWA: 2 mg/m ³	TWA: 2 mg/m ³	TWA: 4.0 mg/m ³ TWA: 1.0 mg/m ³	TWA: 6 mg/m ³ TWA: 2 mg/m ³ STEL: 6 mg/m ³ STEL: 2 mg/m ³	TWA: 10 mg/m ³ TWA: 0.8 mg/m ³ STEL: 30 mg/m ³ STEL: 2.4 mg/m ³
Mica 12001-26-2	TWA: 10 mg/m ³	TWA: 3 mg/m ³	-	TWA: 6 mg/m ³ TWA: 3 mg/m ³ STEL: 6 mg/m ³ STEL: 3 mg/m ³	TWA: 10 mg/m ³ TWA: 0.8 mg/m ³ STEL: 30 mg/m ³ STEL: 2.4 mg/m ³

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available

8.2. Exposure controls

Personal protective equipment

Eye/face protection	Tight sealing safety goggles.
Hand Protection	Wear suitable gloves.
Skin and body protection	Wear suitable protective clothing.
Respiratory protection	Use appropriate respiratory protection.

Environmental exposure Avoid creating dust.

controls

Section 9: Physical and chemical properties
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9.1. Information on basic physical and chemical properties

Physical state	Paste / Gel
Appearance	Black
Odor	Pungent
Color	No information available
Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks Method</u>
pH	7	
Melting / freezing point	260 °C	None known
Boiling point / boiling range	316 °C	
Flash Point	> 221 °C	
Evaporation Rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit	No data available	
Lower flammability limit	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	1.23	
Water Solubility	Negligible	
Solubility(ies)	No data available	None known
Partition coefficient: n-octanol/water	Not Available	
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Viscosity	No data available	None known

9.2. Other information

Softening Point	No information available
Molecular Weight	No information available
VOC Content (%)	Negligible
Liquid Density	No information available
Bulk Density	No information available
Particle Size	No information available
Particle Size Distribution	No information available

Section 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under normal conditions.

Explosion Data

Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.

10.3. Possibility of hazardous reactions

Possibility of Hazardous Reactions None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

10.4. Conditions to avoid

Excessive heat.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

Carbon oxides, Thermal decomposition of product above 300 degrees (C), can create Carbonyl fluoride, which combines with air and moisture and hydrolyses to Hydrogen Fluoride and Carbon Dioxide. Other PTFE degradation products include; perfluoroisobutylene, tetrafluoroethylene, hexafluoropropylene, carbon monoxide and trifluoromethane.

Section 11: Toxicological information**11.1. Information on toxicological effects****Information on likely routes of exposure****Product Information**

Inhalation	Specific test data for the substance or mixture is not available. May be harmful if inhaled. Inhalation of vapors in high concentration may cause irritation of respiratory system. (based on components).
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

Information on toxicological effects

Symptoms Coughing and/ or wheezing. Difficulty in breathing.

Numerical measures of toxicity**Acute Toxicity**

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	2,304.00 mg/kg
ATEmix (inhalation-dust/mist)	0.05 mg/L

Unknown acute toxicity

99.5 % of the mixture consists of ingredient(s) of unknown toxicity
52.5 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

99.5 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
 99.5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
 99.5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
 82.2 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Lubricating greases A complex combination of hydrocarbons having carbon numbers predominantly in the range of C12 through C50. may contain organic salts of alkali metals, alkaline earth metals, etc.	= 2280 mg/kg (Rat)	-	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive Toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

Section 12: Ecological information**12.1. Toxicity****Ecotoxicity**

Chemical name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Lubricating greases A complex combination of hydrocarbons having carbon	>1001 mg/l	96h LC50: > 2000 mg/L (Salmo gairdneri)	-	-

numbers predominantly in the range of C12 through C50. may contain organic salts of alkali metals, alkaline earth metals, etc.				
Talc	-	96h LC50: > 100 g/L (Brachydanio rerio)	-	-

12.2. Persistence and degradability

Persistence and Degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation No information available.

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

Chemical name	PBT and vPvB assessment
Graphite	

12.6. Other adverse effects

Other adverse effects No information available.

Section 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging No information available.

Section 14: Transport information

IMDG/IMO	NOT REGULATED
14.1 UN-No.	Not Regulated
14.2 Proper Shipping Name	NOT REGULATED
14.3 Hazard Class	NOT REGULATED
14.4 Packing Group	NOT REGULATED
14.5 Marine Pollutant	Not applicable
14.6 Special Provisions	None
14.7 Transport in bulk	No information available



according to Annex II of
MARPOL and the IBC Code

RID	NOT REGULATED
14.1 UN-No.	NOT REGULATED
14.2 Proper Shipping Name	NOT REGULATED
14.3 Hazard Class	NOT REGULATED
14.4 Packing Group	NOT REGULATED
14.5 Environmental hazard	Not applicable
14.6 Special Provisions	None

ADR	NOT REGULATED
14.1 UN-No.	NOT REGULATED
14.2 Proper Shipping Name	NOT REGULATED
14.3 Hazard Class	NOT REGULATED
14.4 Packing Group	NOT REGULATED
14.5 Environmental hazard	Not applicable
14.6 Special Provisions	None

IATA	NOT REGULATED
14.1 UN-No.	NOT REGULATED
14.2 Proper Shipping Name	NON REGULATED
14.3 Hazard Class	NOT REGULATED
14.4 Packing Group	NOT REGULATED
14.5 Environmental hazard	Not applicable
14.6 Special Provisions	None

Section 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

France

Occupational Illnesses (R-463-3, France)

Chemical name	French RG number	Title
Graphite 7782-42-5	RG 16 RG 25	-
Talc 14807-96-6	RG 25	-
Mica 12001-26-2	RG 25	-

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

Authorizations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV



Lubricating greases A complex combination of hydrocarbons having carbon numbers predominantly in the range of C12 through C50. may contain organic salts of alkali metals, alkaline earth metals, etc. - 74869-21-9	Use restricted. See item 28.	
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Persistent Organic Pollutants

Not applicable.

Dangerous substance category per Seveso Directive (2012/18/EU)

H2 - ACUTE TOXIC

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable.

International Inventories

TSCA	Contact supplier for inventory compliance status.
DSL/NDSL	Complies.
EINECS/ELINCS	Complies.
ENCS	Not determined.
IECSC	Contact supplier for inventory compliance status.
KECL	Not determined.
PICCS	Complies.
AICS	Not determined.

Legend**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances**ENCS** - Japan Existing and New Chemical Substances**IECSC** - China Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**AICS** - Australian Inventory of Chemical Substances**15.2. Chemical safety assessment**

No information available.

Section 16: OTHER INFORMATION**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under sections 2 and 3**

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H317 - May cause an allergic skin reaction

H332 - Harmful if inhaled

H333 - May be harmful if inhaled

Legend

SVHC: Substances of Very High Concern for Authorization:

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	-	Skin designation

Key literature references and sources for datawww.ChemADVISOR.com/

Prepared By Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

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This safety data sheet complies with the requirements of: Regulation (EC) No. 1907/2006.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet